

**PHYS-4240: General Relativity**  
**ASTR-4240: Gravitation & Cosmology**

**Tentative Schedule - Spring, 2012**

<b>Class</b>	<b>Day</b>	<b>Date</b>	<b>Read*</b>	<b>Topic</b>
1	T	1/24	1.1-4	<a href="#">Newtonian Gravity</a> <a href="#">Lecture Notes</a>
2	F	1/27	1.5-6	<a href="#">Equivalence Principle</a> <a href="#">Lecture Notes</a>
3	T	1/31	1.7-8	<a href="#">Tidal Forces</a> <a href="#">Lecture Notes</a>
4	F	2/3	2.1-4	<a href="#">Spacetime Physics</a> <a href="#">Lecture Notes</a>
5	T	2/7	2.5, 7	<a href="#">Relativistic Electrodynamics</a> <a href="#">Lecture Notes</a>
6	F	2/10	3.1-2	Classical, Relativistic Field Theory <a href="#">Lecture Notes</a>
7	T	2/14	3.3-4	<a href="#">Weak Gravitational Fields I</a> <a href="#">Lecture Notes</a>
8	F	2/17	3.5-6	<a href="#">Weak Gravitational Fields II</a> <a href="#">Lecture Notes</a> <a href="#">Exam 1 Review Sheet</a>
9	T	2/21		<b>Exam 1</b>
10	F	2/24	4.1-3	<a href="#">Classical Tests of GR I</a> <a href="#">Lecture Notes</a>
11	T	2/28	4.4, 7	<a href="#">Classical Tests of GR II</a> <a href="#">Lecture Notes</a> <a href="#">LAGEOS I &amp; 2 Missions</a>
12	F	3/2	5.1-2	<a href="#">Gravitational Waves I</a> <a href="#">Lecture Notes</a>
13	T	3/6	5.3-4	<a href="#">Gravitational Waves II</a> <a href="#">Lecture Notes</a>

14	F	3/9	6.1-2	<a href="#">Riemannian Geometry I</a> <a href="#">Lecture Notes</a>
		3/13		<b>NO CLASS</b> (Spring Break)
		3/16		<b>NO CLASS</b> (Spring Break)
15	T	3/20	6.3-4	<a href="#">Riemannian Geometry II</a> <a href="#">Lecture Notes</a>
16	F	3/23	6.5-6	<a href="#">Riemannian Geometry III</a> <a href="#">Lecture Notes</a>
17	T	3/27	7.1-4	<a href="#">Einstein's Field Equations</a> <a href="#">Lecture Notes</a>
18	F	3/30	8.1-3	<a href="#">Black Holes</a> <a href="#">Lecture Notes</a> <a href="#">Exam 2 Review Sheet</a>
19	T	4/3		<b>NO CLASS (canceled)</b>
20	F	4/6		<b>Exam 2</b>
21	T	4/10	9.7	<a href="#">The Robertson-Walker Metric</a> <a href="#">Lecture Notes</a> <a href="#">Lecture Slides</a>
22	F	4/13	9.8-10	<a href="#">Evolution of the Universe</a> <a href="#">Lecture Notes</a>
	T	4/17		<b>NO CLASS – GM WEEK</b>
23	F	4/20		<a href="#">Single &amp; Multiple Component Universes</a> <a href="#">Lecture Notes</a>
24	T	4/24		<a href="#">Measuring Cosmological Parameters</a> <a href="#">Lecture Notes</a>
25	F	4/27		<a href="#">Dark Matter and Energy</a> <a href="#">Lecture Notes</a> <a href="#">Lecture Slides</a>
26	T	5/1		<a href="#">The Cosmic Background Radiation</a> <a href="#">Lecture Notes</a>
27	F	5/4		<a href="#">The Early Universe</a> <a href="#">Lecture Notes</a> <a href="#">Lecture Slides</a>

**\*Numbers in red are required reading from Chapter 1 of the 3<sup>rd</sup> (unpublished) edition of Ohanian & Ruffini, which you should have received by email. Numbers in black are required reading from the 2<sup>nd</sup> edition of Ohanian & Ruffini, which you should purchase.**

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